

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Claim 1 (Currently Amended): A method of reclaiming crosslinked rubber, ~~which comprises~~ comprising:

introducing a degasification carrier and removing, together with the degasification carrier, decomposed products in crosslinked rubber by applying shear stress thereto, during 1) a reclamation step of reclaiming crosslinked rubber ~~by applying shear stress thereto~~ and/or 2) a subsequent step after the reclamation step.

Claim 2 (Original): The method of reclaiming crosslinked rubber according to claim 1, wherein the crosslinked rubber is resin-crosslinked butyl rubber.

Claim 3 (Currently Amended): The method of reclaiming crosslinked rubber according to claim 1, wherein the degasification carrier is at least one member selected from a the group consisting of inert gas, water and alcohol.

Claim 4 (Original): The method of reclaiming crosslinked rubber according to claim 1, wherein the reclamation step is conducted at the temperature of 100 to 520°C.

Claim 5 (Currently Amended): A molding of reclaimed rubber, produced by a process which comprises

introducing a degasification carrier and removing, together with the degasification carrier, decomposed products in crosslinked rubber by applying shear stress thereto ~~to obtain reclaimed rubber~~ during 1) a reclamation step of reclaiming crosslinked rubber ~~by applying~~

~~shear stress thereto~~ and/or 2) a subsequent step after the reclamation step, to obtain reclaimed rubber, and

re-crosslinking the reclaimed rubber or melt-blending the reclaimed rubber with thermoplastic resin, to obtain a molded reclaimed rubber.

Claim 6 (Original): The molding of reclaimed rubber according to claim 5, wherein the crosslinked rubber is resin-crosslinked butyl rubber.

Claim 7 (Currently Amended): The molding of reclaimed rubber according to claim 5, wherein the amount of decomposed products in the reclaimed rubber is reduced to 1/2 or less relative to ~~that~~ the amount of decomposed products in the reclaimed rubber before introduction of the degasification carrier.

Claim 8 (New) The method according to claim 1, wherein the degasification carrier is introduced after the decomposed products have been generated.

Claim 9 (New) The method according to claim 1, wherein the crosslinked rubber is selected from the group consisting of sulfur-vulcanized ethylene propylene diene terpolymer, a blend of natural rubber and styrene-butadiene rubber, styrene-butadiene rubber, and acrylonitrile-butadiene rubber.

Claim 10 (New) The method according to claim 1, wherein an amount of the degasification carrier is 0.02 to 20 parts by weight based on 100 parts by weight of crosslinked rubber.

Claim 11 (New) The method according to claim 1, wherein an amount of the degasification carrier is 0.5 to 7 parts by weight based on 100 parts by weight of crosslinked rubber.

Claim 12 (New) The method according to claim 1, wherein the decomposed products and the degasification carrier are removed by heating degasification, degasification under reduced pressure, solvent cleaning, or bubbling.

Claim 13 (New) The method according to claim 1, wherein the reclamation steps comprises a preheating step, a plasticizing step and a kneading step.

Claim 14 (New) The method according to claim 1, wherein the shear stress is 1 to 100 MPa.

Claim 15 (New) The method according to claim 1, wherein the shear stress is 1 to 15MPa.

Claim 16 (New) The method according to claim 1, wherein the reclaiming is performed in an extruder.

Claim 17 (New) The method according to claim 3, wherein the inert gas is N₂, Ar, He or CO₂.

Claim 18 (New): A method of reclaiming crosslinked rubber, comprising:

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introducing water as a degasification carrier and removing, together with the degasification carrier, decomposed products in crosslinked rubber by applying shear stress thereto, during 1) a reclamation step of reclaiming crosslinked rubber and/or 2) a subsequent step after the reclamation step.

BASIS FOR THE AMENDMENT

The Claims have been amended to better conform to accepted U.S. claim format.

New Claims 8-18 have been added.

New Claim 8 is supported at page 4, lines 18-23.

New Claim 9 is supported at page 5, line 24 to page 6, line 3.

New Claim 10 is supported at page 6, lines 12-14.

New Claim 11 is supported at page 6, lines 22-25.

New Claim 12 is supported at page 7, 1st and 2nd paragraph.

New Claim 13 is supported at page 8, lines 22-23.

New Claim 14 is supported at page 9, lines 6 and 7.

New Claim 15 is supported at page 9, lines 15-17.

New Claim 16 is supported at page 10, line 24 to page 11, line 2.

New Claim 17 is supported at page 12, line 8.

New Claim 18 is supported by Claims 1 and 3 as originally filed.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-18 will now be active in this application.

INTERVIEW SUMMARY

Applicants wish to thank Examiner Wyrozebski Lee for the helpful and courteous discussion with Applicants' Representative on February 24, 2004. During this discussion it was noted that Claims 1, 3-5 and 7 cannot be anticipated by U.S. 6,133,413 because this reference fails to disclose removal of decomposed products together with a degasification carrier from the cross-linked rubber as claimed. In addition, the superior results obtained using a degasification carrier as shown by the Examples of the specification are not disclosed or suggested by the reference.

Further, the deodorization equipment 16 in JP 06-210633 does not use a degasification carrier to remove the decomposed products. In addition, the data in the specification show that decomposed products cannot be sufficiently removed without the use of a degasification carrier. See, for example, Table 4 at page 27 of the specification.